

No.

200200136



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Rutgers University - Cook College c/o

Dr. William Meyer

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED; OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (34 STAT. 2591, 7 U.S.C. 2321 ET SEQ.)

BLUEGRASS, KENTUCKY

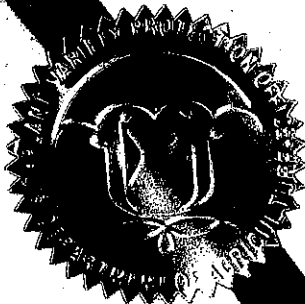
'Royale'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this twenty-second day of November, in the year two thousand and four.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture



U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OFFICE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

1. NAME OF APPLICANT(S) (as it is to appear on the Certificate) Rutgers University - Cook College c/o Dr. William Meyer		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER A97-1336		3. VARIETY NAME Royale'	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) Foran Hall Plant Biology & Pathology Dept. 59 Dudley Road New Brunswick, NJ 08901		5. TELEPHONE (include area code) (732) 932 - 9711 ext.160		FOR OFFICIAL USE ONLY PVPO NUMBER 200200136 DATE April 12, 2002	
		6. FAX (include area code) (732) 932 - 9441			
7. GENUS AND SPECIES NAME Poa pratensis		8. FAMILY NAME (Botanical) Poaceae		FILING AND EXAMINATION FEE: \$ 2705 DATE 4/12/2002	
9. CROP KIND NAME (Common name) Kentucky bluegrass				CERTIFICATION FEE: \$ 432 DATE 10/25/2004	
10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) (Common Name) Government Institution		11. IF INCORPORATED, GIVE STATE OF INCORPORATION		12. DATE OF INCORPORATION	
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS Dr. William Meyer c/o Rutgers University - Cook College Foran Hall Plant Biology & Pathology Dept 59 Dudley Road New Brunswick, NJ 08901		14. TELEPHONE (include area code) (732) 932 - 9711 ext. 160		15. FAX (include area code) (732) 932 - 9411	
16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)					
a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of the Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Applicant's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2500 viable untreated seeds or, for tuber propagated varieties verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,450), made payable to "Treasure of the United States" (Mail to PVPO)					
17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act) <input type="checkbox"/> YES (If "yes," answer items 18 and 19 below) <input checked="" type="checkbox"/> No (If "no," go to item 20)					
18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		19. IF "YES" TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDERS SEED? <input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED			
20. HAS THE VARIETY OR HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES? <input type="checkbox"/> YES (If "yes," give names of countries and dates) <input checked="" type="checkbox"/> NO					
21. The applicant(s) declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.					
SIGNATURE OF APPLICANT (Owner(s)) W. A. Meyer		SIGNATURE OF APPLICANT (Owner(s))			
NAME (Please print or type) William A. Meyer		NAME (Please print or type)			
CAPACITY OR TITLE Professor		DATE 3-22-02		CAPACITY OR TITLE	
				DATE	

Exhibit A:

I. Origin and Breeding History

Royale' (A97-1336) Kentucky Bluegrass

Royale' (A97-1336) Kentucky bluegrass (*Poa pratensis* L.) appears to have originated as a single, apomictic plant selected from the progeny of a cross between C-74 and a plant similar to Shamrock Kentucky bluegrass (1). C-74 is a vigorous, apomictic plant that originated from a plant collected from an old turf area in Exeter, Rhode Island in 1987.

A plant of C-74 was pollinated by Shamrock Kentucky bluegrass (1), during the late winter of 1994-1995 in a greenhouse located on the Cook College campus of Rutgers University. Environmental conditions prior to and during pollination were modified to increase sexual reproduction of facultatively apomictic Kentucky bluegrasses (3,4,5). Seed from the C-74 female parent was harvested in the spring of 1995. Seedlings were grown in the greenhouse in the winter of 1995-1996 and hybrids were phenotypically identified. Selected hybrid plants were established in a spaced-plant nursery at the Rutgers University Plant Science Research and Extension Farm at Adelphia, New Jersey, during the spring of 1996. The following summer, an attractive F₁ hybrid plant was harvested on July 1 and yielded 51 grams. This was a later maturing, average yielding plant compared to other Kentucky bluegrasses harvested from that nursery. In the fall of 1997, it was planted in a turf plot at Adelphia, New Jersey with the designation A97-1336. Royale' (A97-1336) is 94% apomictic, observed from seedlings with good floret fertility and a seed head number rating of 7 (1-9 scale; 9=most seed heads). Royale' (A97-1336) has above average turf quality, good leaf spot resistance, average spring green-up, and average seedling vigor.

In 1998 a seed increase block containing 2,764 plants was established. In the spring of 1999, 184 plants were removed (6.67%). The remaining plants were harvested in bulk and designated A97-1336, breeder seed.

References:

1. Bailey, R.H., A. Wick, R.F. Bara, W.K. Dickson, and C.R. Funk. 1995 Registration of 'Shamrock' Kentucky bluegrass. *Crop Sci* 35:939-940.
2. Rose-Fricker, C.A., M.L. Fraser, W.A. Meyer, and C.R. Skogley. 1999 Registration of 'Unique' Kentucky bluegrass. *Crop Sci.* 39:290.
3. Bashaw, E.C., and C.R. Funk. 1987 Apomictic grasses. P. 40-82. *In* F. Lemaire (ed.) *Prod. Int. Turfgrass Res. Conf.*, 5th Avignon, France. INRA Publ., Versailles.
4. Hintzen, J.J., and A.J.P. van Wijk. 1985. Ecotype breeding and hybridization in Kentucky bluegrass (*Poa pratensis* L.). p. 213-219. *In* F. Lemaire (ed.) *Prod. Int. Turfgrass Res. Conf.*, 5th Avignon, France. INRA Publ., Versailles.
5. Pepin, G.W., and C.R. Funk. 1971. Intraspecific hybridization as a method of breeding Kentucky bluegrass for turf. *Crop Sci.* 11:445-448.

II. Breeder Seed Maintenance:

A breeder seed stock was planted in isolation in 1998. Breeder seed was harvested in bulk (6.67% rogued), in 1999 and is maintained in cold storage. Seed propagation is limited to three generations, one each of foundation, registered, and certified.

III. Stability and Uniformity:

Royale' is a stable, uniform cultivar. Stability and uniformity has been observed in breeder and foundation seed multiplications and turf plots. Neither off-type or variant plants have been observed in the multiplication process.

Exhibit B:**Novelty Statement for Royale' (A97-1336) Kentucky Bluegrass**

The following summary outlines the distinctive characteristics of Royale' (A97-1336). The novelty of Royale' is based on the unique combination of these characteristics. Royale' is most similar to Baron, but may be differentiated by using the following criteria;

- 1) Royale' exhibits a darker genetic color than Baron (tables 1A, 1B).
- 2) The lemma width for Royale' is narrower than Baron (tables 2A, 2B).
- 3) Royale' has more spikelets on the longest branch of the lower most whorl compared to Baron (tables 2A, 2B).
- 4) The number of spikelets per panicle for Royale' is greater than Baron (tables 2A, 2B).

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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**U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY PROGRAM
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705**

**EXHIBIT C
(BLUEGRASS)**

**OBJECTIVE DESCRIPTION OF VARIETY
BLUEGRASS
(*Poa* spp.)**

NAME OF APPLICANT(S) Rutgers University c/o Dr. William Meyer	TEMPORARY DESIGNATION A97-1336	VARIETY NAME Royale'
ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code) Foran Hall Plant Biology & Pathology Dept. 59 Dudley Road New Brunswick, NJ 08901		FOR OFFICIAL USE ONLY PVPO NUMBER 200200136

Select the number which characterizes the variety in the features described below. For measured characteristics use leading zeros as necessary in order to fill all blanks (e.g. 089). Those characteristics marked with a star * are preferred to be recorded. Any others should be recorded to help establish novelty or uniqueness. Characteristics described, including numerical measurements, should represent those that are typical for the variety. Measured data should be for SPACED PLANTS. Royal Horticultural Society or any recognized color fan may be used to determine plant colors; designate the system used: _____ . Describe location of test area, conditions, and number of Plants used: See item 15, exhibit C.

1. SPECIES:

2 1 = *Poa compressa* 2 = *P. pratensis* 3 = *P. trivialis* 4 = Others (Please Specify): _____

 Chromosome Number

2. ADAPTATION: (0 = Not Tested, 1 = Not Adapted, 2 = Adapted, 3 = Well Adapted)

3 Northeast 0 Transitional Zone 0 Southeast 3 North Central
3 Pacific N.W. 0 Intermountain 0 Southwest (CA, AZ) 0 Other (Please Specify): _____

3. MATURITY (At first anthesis): Give test area Albany, Oregon

★ 5 1 = Very Early 2 = Early (Delta, Mystic) 3 = Medium Early (Fylking, Nugget)
4 = Medium late (Newport, Adelphi, Aquila) 5 = Late (Merion, Baron, Enmundi)
6 = Very Late (Pacific)

49.33 (days after April 1,) Date of First Anthesis

<u> </u> <u> </u> Number of days earlier than ★ <u> </u>	1 = Nugget	2 = Fylking	3 = Delta
Maturity same as ★ <u>6</u>	4 = Merion	5 = Newport	6 = Baron
<u> </u> <u> </u> Number of days later than ★ <u> </u>	7 = Mystic	8 = Sabre	9 = Reubens

4. PLANT HEIGHT (At maturity-Average of longest shoot of 10 plants from soil surface to top of panicle): Test Area Albany, OR

★ 2 1 = Short 2 = Medium short (Baron, Fylking, Mystic)
2 3 = Medium tall (Merion, Adelphi) 4 = Tall (delta) 5 = Very tall

★ 70.17 cm Height

1 cm Shorter than ★ 1 1 = Nugget 2 = Fylking 3 = Delta

Height same as 6 4 = Merion 5 = Newport 6 = Baron

1 cm Taller than ★ 1 7 = Mystic 8 = Sabre 9 = Reubens

5. GROWTH HABIT:

★ 2 Habit: 1 = Prostrate (Nugget) 2 = Semiprostrate (Merion) 3 = Erect (Delta)

50.50 cm Amount of spread by rhizomes in 1 year (give test area Albany, Oregon)

6. LEAF BLADE:

★ 4 Green color: 1 = Light green (Mystic) 2 = Medium green (Fylking, Bonnieblue)
 3 = Moderately dk. green (Merion, Adelphi) 4 = Very dk. green (Nugget, Glade, Enmundi)

★ 4 Bluegreen color: 1 = Not bluegreen (Mystic, Touchdown, Parade) 2 = Moderately bluegreen (Merion, A-34)
 3 = Bluegreen (Nugget, Enmundi, Adelphi) 4 = Strongly bluegreen (Majestic)

2 Winter color: 1 = Light green 2 = Dark green 3 = Light purple
 4 = Dark purple 5 = Not purple 6 = Not green or purple

★ 1 Hairs upper side: 1 = Absent (Nugget) 2 = Sparse (Merion) 3 = Dense (Park)

1 Hairs lower side: 1 = Absent (Fylking, Merion) 2 = Sparse 3 = Dense (Nugget)

2 Luster upper side: 1 = Shiny (Eclipse, Enmundi) 2 = Dull (Aquila, Parade)

1 Luster lower side: 1 = Shiny (Mystic, Enmundi) 2 = Dull (Barbie, Eclipse)

★ 1 Margin hairs 1 = Absent (Delta) 2 = Present (Fylking, Merion)
 (Fringe on Margin or Base):

★ 3 Width: 1 = Very fine (Mystic) 2 = Fine (Nugget) 3 = Medium (Merion, Fylking)
 4 = Broad (Adelphi, Baron) 5 = Very broad (Monopoly)

5.00 mm Width (flag leaf)

1 mm Narrower than ★ 1 1 = Nugget 2 = Fylking 3 = Delta

Width same as ★ 6 4 = Merion 5 = Newport 6 = Baron

1 mm Wider than ★ 1 7 = Mystic 8 = Sabre 9 = Reubens

19.37 mm Length (flag leaf)

1 mm Shorter than ★ 1 1 = Nugget 2 = Fylking 3 = Delta

Length same as ★ 6 4 = Merion 5 = Newport 6 = Baron

1 mm Longer than ★ 1 7 = Mystic 8 = Sabre 9 = Reubens

1 Position of flag leaf (angle to stem): 1 = Appressed 2 = Open angle, yet stiff 3 = Nodding

7. LEAF SHEATH:

10.47 mm sheath length

- ★ 1 Seedling Color (base of sheath): 1 = Green (Nugget, Merion) 2 = Red (Delta)
- ★ 2 Hairs on Margin: 1 = Absent (Fylking) 2 = Present (Nugget)
- ★ 1 Margin Roughness (to touch): 1 = Smooth (Delta) 2 = Rough (Sabre)
- 1 Hairs on Surface: 1 = Absent () 2 = Present (Nugget)
- 1 Surface Roughness (to touch): 1 = Smooth (Fylking) 2 = Rough (Ram I)
- 2 Hairs on both sides just beneath leaf blade (under collar): 1 = Absent (Merion) 2 = Present (Nugget)
- 2 Hairs on ligule: 1 = Absent (Fylking) 2 = Short (Baron) 3 = Long (Nugget)
- 1 Glaucoity: 1 = Absent (Mystic, Enmundi) 2 = Present (Birka)
- 2 Keel: 1 = Absent (Ram I) 2 = Present (Adelphi)

8. PANICLE (Mature Plant):

113.66 mm Length (Lowest branch whorl to top, for 10 plants) Test Area: Albany, Oregon

- 1 mm Shorter than ★ 1 1 = Nugget 2 = Fylking 3 = Delta
- Panicle same as ★ 6 4 = Merion 5 = Newport 6 = Baron
- 1 mm Longer than ★ 1 7 = Mystic 8 = Sabre 9 = Reubens

- 1 Color (at 50% flowering): 1 = Not red (Fylking) 2 = Red (Nugget)
- 1 Shape of Rachis (opposite lower side branches): 1 = No bend (Nugget) 2 = Bend (Merion)
- ★ 2 Collar: 1 = Opened (Nugget) 2 = Closed (Merion)
- ★ 1 Branches Attitude (Lowest whorl): 1 = Drooping (America, Prato) 2 = Horizontal (Merion) 3 = Ascending (Tundra)
- 4 Number of main branches in lowest whorl:
- ★ 1 Panicle habit: 1 = Nodding (Newport) 2 = Upright (Nugget)
- 3 Panicle type: 1 = Open 2 = Intermediate 3 = Compact
- 2 Anther color (anthesis): 1 = Purple 2 = Yellow 3 = Brown

9. LEMMA

- ★ 2 Keel 1 = Glabrous 2 = Slightly pubescent 3 = Pubescent
- ★ 1 Marginal Nerves 1 = Distinct 2 = Obscure
- 1 Intermediate Nerves: 1 = Distinct 2 = Obscure
- 2 Basal Webbing: 1 = Absent 2 = Scant (Baron) 3 = Copious (Merion)

10. SEED: (Floret-not dehulled)

- ★ 2 Apomixis Percentage: 1 = more than 95 2 = 85 to 95 3 = less than 85

10. SEED (Continued)

200200136

☐ Phenol Reaction:1 = none-lemma removed (Merion)
4 = Black (Mystic -24hrs)

2 = Beige (Cougar)

3 = Brown (Windsor)

5 = Black (-24hrs)

 0.68 mm Width (average of 10) 3.52 mm Length 2,550 Milligrams per 10,000 seed 1,100 Milligrams less than 6

1 = Nugget

2 = Frylking

3 = Delta

Weight same as

★

4 = Merion

5 = Newport

6 = Baron

 Milligrams more than

★

7 = Mystic

8 = Sabre

9 = Reubens

 1 Weight Class (g per 10,000 seed):

1 = Light (< 3g Sydsport, Merion)

2 = Medium (3g - 4g Adelphi, Parade)

3 = Heavy (> 4g Fylking, Nugget)

11. ENVIRONMENTAL RESISTANCE:

(0 = Not Tested; 1 = Very Susceptible, 2 = Moderately Susceptible, 3 = Moderately Resistant, 4 = Highly Resistant)

 0 Cool Temperature
(Winter color) 0 Cold (injury) 0 Heat 0 Drought 0 Shade 0 Low Fertility 0 Acid Soil
(< pH 5.5) 0 Alkalinity
(pH > 7.5) 0 Salinity 0 Soil Compaction 0 Poor Drainage 0 Air Pollution 0 Other (Please Specify): _____

12. DISEASE RESISTANCE:

(0 = Not Tested; 1 = Very Susceptible, 2 = Moderately Susceptible, 3 = Moderately Resistant, 4 = Highly Resistant)

 0 Melting-Out *Drechslera poae* (*Helminthosporium vagans*) 0 Sclerotinia *S. borealis* 0 Helminthosporium Leaf Spot *Bipolaris sorokiniana* 0 Stem Rust *Puccinia graminis* 0 Brown Patch *Rhizoctonia solani* 0 Stripe Rust *P. striiformis* 0 Powdery Mildew *Erysiphe graminis* 0 Leaf Rust *P. poae-nemoralis* 0 Stripe Smut *Ustilago striiformis* 0 Orange Stripe Rust *P. poarum* 0 Flag Smut *Urocystis agropyri* 0 Pythium Blight *Pythium* spp. 0 Pink Snow Mold *Fusarium nivale* 0 Red Thread *Corticium fujiciforme* 0 Ergot *Claviceps purpurea* 0 Other (Please Specify): _____ 0 Fusarium Blight *Fusarium roseum*, *F. tricinctum* 0 Other (Please Specify): _____ 0 Typhula Blight *Typhula* spp. 0 Dollar Spot *Sclerotinia homoeocarpa*

13. INSECTS, NEMATODES, RESISTANCE:

(0 = Not Tested; 1 = Very Susceptible, 2 = Moderately Susceptible, 3 = Moderately Resistant, 4 = Highly Resistant)

 0 Chinch Bug *Blissus* spp. (give species: _____) 0 Sod Webworm *Crambus* spp. (give species: _____)

13. INSECTS, NEMATODES, RESISTANCE (Continued)

☐ Bluegrass Billbug *Sphenophorus parvulus*

☐ White Grub: Japanese Beetle, Chafers (give species _____)

☐ Greenbug Aphid *Schizaphis graminum*

☐ Other (Please Specify): _____

☐ Other (Please Specify): _____

14. Give variety or varieties that most closely resemble the application variety. For the following characteristics indicate Degree of Resemblance by placing in the column marked D.R., one of the following numbers: 1 = Application variety is less than comparison variety; 2 = Same as; 3 = More than, better, greater, darker, more disease resistant, etc.

CHARACTER	VARIETY	D.R.	CHARACTER	VARIETY	D.R.
Maturity-heading	Baron	2	Leaf Width	Baron	2
Height	Baron	2	Leaf Color Spring	Baron	3
Seed Size	Baron	2	Leaf Color Summer	Baron	3
Seed Weight	Baron	1	Leaf Color Winter	Baron	3
Cold Injury	Baron		Drought	Baron	
Heat	Baron		Disease**	Baron	
Shade	Baron				

**Specify each disease evaluated.

15. ADDITIONAL DESCRIPTION

Describe all characteristics and conditions that cannot be adequately described in this form in Exhibit D.

A morphological nursery designated 99PVPPP1 was established in September of 1999, in Albany, Oregon. Experimental design consisted of 22 entries; 3 replications per entry; 20 plants per replication; for a total of 60 plants per entry. Baron, America, and Unique were used as standards. Plants were established on 2.5 foot centers with a skip row between replications and between entries.

The nursery received 30 pounds of nitrogen per acre rate following establishment and 50 pounds of nitrogen per acre per year in 2000 and 2001. The fertilizer source was 15-15-15 and was applied as a split application with ½ applied in the spring and ½ in the fall. The nursery was sprayed twice each spring, 3 weeks between applications, with Tilt (2 oz/acre rate), to prevent stem rust. One pound of Karmex per acre rate was applied during late summer to prevent emergence of volunteer seedlings.

Data was analyzed using analysis of variance for a randomized complete block design. Means were calculated for each replication and then analyzed.

Exhibit D:

Additional Description

Royale' (A97-1336) Kentucky Bluegrass

Royale' is an improved turf-type Kentucky bluegrass. Royale' has a more dwarf growth habit (tables 1A, 1B) than Unique. Royale' is earlier maturing compared to Unique and America (tables 1A, 1B). The genetic color of Royale' is darker in comparison to previously released cultivars, such as Unique, America, and Baron (tables 1A, 1B, 5A, 5B). Royale' exhibits a larger spread of rhizomes in one year than America and Unique (tables 1A, 1B). The sheath length of the flag leaf for Royale' is longer than Unique (tables 1A, 1B). The distance between the upper most nodes is greater for Royale' compared to America (tables 1A, 1B). Royale' has a reduced leaf blade length (first leaf subtending the flag leaf) than Unique or America (tables 1A, 1B). The length and width of the lemma is larger than Unique and America (tables 2A, 2B). Royale' has an increased spikelet length compared to Unique (tables 2A, 2B). The length of the longest branch of the lower whorl is shorter for Royale' compared to Unique and America (tables 2A, 2B, illus. 1). The length of the medium and shortest branch of the lower whorl are longer than Baron (tables 2A, 2B, illus. 1). Royale' has a reduced distance between the lower most whorls compared to Unique and America (tables 2A, 2B, illus. 1). Royale' expresses a higher frequency of four branches on the lower most whorl compared to Baron (table 7, illus. 1). Royale' expresses a more erect growth habit compared to Baron, Unique, and America (tables 3A, 3B). The intermediate nerves on the lemma are less distinct for Royale' than for Baron (tables 4A, 4B).

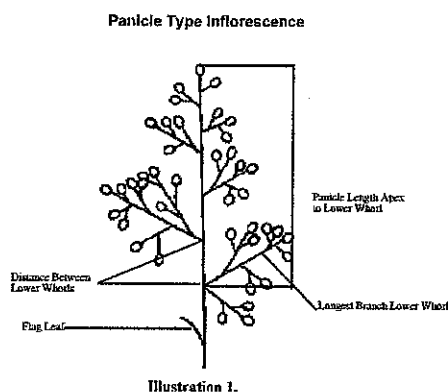


Table 1A 2000 Morphological Data

Cultivar	Heading Date (days after April 1)	Anthesis Date (days after April 1)	Genetic Color	Mature Plant Height (cm)	Plant Width (cm)	Panicle Length (cm)	Flag Leaf Length (cm)	Flag Leaf Width (cm)	Flag Leaf Height (cm)	Flag Leaf Sheath Length (cm)	Flag Leaf Internode Length (cm)	Leaf Blade Length (cm)	Leaf Blade Width (cm)	Leaf Blade Height (cm)	Leaf Sheath Length (cm)
A97-1336	22.00	49.33	8.00	70.17	24.90	48.60	19.37	5.00	35.23	13.70	19.27	20.43	5.33	13.20	10.47
A97-1400	31.00	55.67	5.00	65.40	22.73	46.60	24.37	5.67	34.20	15.07	15.27	26.20	6.67	15.93	11.90
A97-1432	32.33	54.33	6.67	59.17	20.97	41.73	19.10	5.00	30.23	13.43	16.57	22.47	5.33	12.63	11.43
A96-402	33.67	57.00	7.00	64.50	23.97	53.23	23.73	6.00	27.30	15.77	12.70	25.27	6.00	10.77	11.93
A96-453	25.00	52.33	5.00	69.93	19.90	48.63	20.97	5.33	36.27	14.87	19.13	23.53	6.00	14.23	12.03
A96-328	19.67	52.33	8.00	71.20	18.40	40.77	21.50	5.33	45.50	14.67	21.50	25.47	6.00	21.57	12.23
Unique	32.33	58.67	6.00	61.57	19.40	40.37	20.03	4.67	32.57	12.33	17.77	22.60	5.33	13.47	10.97
America	31.33	57.67	5.67	62.30	19.80	42.73	20.47	5.00	32.47	13.00	16.63	22.53	5.00	13.63	10.87
Baron	15.33*	46.67	4.00	57.63	24.77	40.47	19.90	5.33	31.23	13.93	14.63	19.87	6.33	13.40	10.33
LSD 5%	1.36	1.56	0.42	4.23	2.13	3.12	1.56	0.56	3.11	0.74	1.90	1.86	0.49	2.20	0.79
C.V.	4.18	2.19	5.16	4.78	7.25	5.12	5.36	7.79	6.69	3.80	8.47	5.95	6.20	10.70	5.13

Measurements taken in Albany, Oregon

3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

■ significant difference over two years one location.

■ significant difference over one year one location.

Table 1B
2001 Morphological Data

Cultivar	Heading Date (days after April 1)	Anthesis Date (days after April 1)	Genetic Color	Mature Plant Height (cm)	Plant Width (cm)	Panicle Length (cm)	Flag Leaf Length (cm)	Flag Leaf Width (cm)	Flag Leaf Height (cm)	Flag Leaf Sheath Length (cm)	Flag Leaf Internode Length (cm)	Leaf Blade Length (cm)	Leaf Blade Width (cm)	Leaf Blade Height (cm)	Leaf Sheath Length (cm)
A97-1336	22.33	47.00	6.67	68.63	50.50	45.23	20.07	3.33	36.67	13.67	18.17	21.83	4.00	15.80	11.17
A97-1400	28.33	52.00	5.00	71.57	47.37	46.63	26.57	3.67	39.17	15.03	15.70	28.87	4.67	20.43	12.13
A97-1432	27.33	49.00	5.33	68.77	48.50	44.53	21.17	3.33	38.23	14.23	16.63	25.17	4.00	19.93	12.20
A96-402	31.67	54.33	7.67	70.50	49.70	48.53	25.40	3.67	37.10	15.40	17.43	28.57	4.67	16.10	12.63
A96-453	25.67	50.00	5.33	69.60	44.33	45.53	25.70	3.67	39.20	16.03	17.43	28.53	4.00	18.53	13.57
A96-328	22.00	49.67	6.67	71.03	41.23	42.97	26.83	4.00	43.77	17.10	17.07	31.57	4.33	23.90	14.50
Unique	30.00	54.67	4.67	65.67	45.67	42.83	23.10	3.67	35.50	12.50	16.53	26.03	4.00	16.83	10.97
America	29.67	53.67	4.33	66.63	44.03	42.90	23.40	3.67	36.47	13.10	15.83	26.60	4.00	18.83	11.43
Baron	24.67*	46.67	4.33	68.73	51.50	45.03	22.30	3.67	38.37	15.03	17.33	22.90	4.33	17.63	12.13
LSID 5%	1.06	0.94	0.55	2.77	4.05	2.78	1.23	0.62	2.36	0.86	1.12	1.50	0.49	2.14	0.75
C.V.	2.99	1.38	7.28	2.99	6.47	4.60	3.81	13.42	4.54	4.18	5.22	4.13	9.12	8.04	4.36

Measurements taken in Albany, Oregon

3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

■ significant difference over two years one location.

■ significant difference over one year one location.

Table 2A
2000 Laboratory Morphological Data

Cultivar	Lemna Length (mm)	Lemna Width (mm)	Florets per Spikelet	Spikelet Length (mm)	Length of Longest Whorl (mm)	Length of Medium Whorl (mm)	Length of Shortest Whorl (mm)	Distance Between Lower Most Whorls (mm)	Number of Spikelets on the Longest Whorl	Spikelets per Panicle	Length of Panicle From Lower Most Whorl to Tip (mm)	Basal Hair Length (mm)
A97-1336	3.52	0.68	5.00	5.23	61.27	47.61	38.03	22.57	15.33	165.33	113.66	4.32
A97-1400	3.48	0.67	5.00	5.26	72.62	54.98	40.57	30.99	17.00	190.00	128.83	4.13
A97-1432	3.38	0.67	5.33	5.56	58.94	42.38	31.53	25.39	13.00	127.00	108.62	3.92
A96-402	3.60	0.63	4.00	5.47	70.94	54.31	39.96	28.26	16.67	178.33	125.60	4.23
A96-453	3.46	0.67	5.00	5.25	65.13	51.73	42.49	25.90	17.67	169.00	113.83	4.09
A96-328	3.28	0.67	4.33	5.14	62.60	46.78	36.15	25.52	19.67	188.33	116.20	3.80
Unique	2.91	0.56	5.00	4.84	65.28	48.94	37.63	25.63	14.67	147.33	107.43	3.31
America	3.09	0.59	5.33	5.00	65.91	49.95	39.06	26.24	14.33	153.33	113.25	3.55
Baron	3.72	0.76	5.00	5.61	58.74	43.23	31.87	23.18	12.33	131.67	100.87	3.58
LSD 5%	0.12	0.04	0.47	0.23	3.26	3.12	2.68	1.71	1.64	14.46	6.25	0.58
C.V.	2.51	4.03	7.49	3.20	3.67	4.78	5.51	4.50	6.96	6.34	3.88	11.13

Measurements taken in Albany, Oregon

3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

■ significant difference over two years one location.

■ significant difference over one year one location.

Table 2B

2001 Laboratory Morphological Data

Cultivar	Lemna Length (mm)	Lemna Width (mm)	Florets per Spikelet	Spikelet Length (mm)	Length of Longest Whorl (mm)	Length of Medium Whorl (mm)	Length of Shortest Whorl (mm)	Distance Between Lower Most Whorls (mm)	Number of Spikelets on the Longest Whorl (mm)	Spikelets per Panicle	Length of Panicle from Lower Most Whorl to Tip (mm)	Basal Hair Length (mm)
A97-1336	3.28	0.66	4.00	4.76	59.22	46.62	35.36	22.83	16.00	198.67	113.13	2.49
A97-1400	3.11	0.61	4.67	4.46	70.02	53.20	36.74	31.88	18.00	210.67	132.62	2.46
A97-1432	3.26	0.64	4.67	4.88	67.54	49.50	35.08	30.15	15.67	186.00	128.63	3.10
A96-402	3.38	0.60	4.33	4.73	70.79	53.92	37.02	27.88	19.00	225.67	132.30	2.94
A96-453	3.24	0.61	4.00	4.66	70.43	55.28	41.26	28.44	20.33	230.67	125.68	2.46
A96-328	3.14	0.66	4.00	4.48	79.61	60.62	43.07	34.45	29.00	316.67	153.48	2.67
Unique	2.68	0.54	4.33	4.17	68.46	50.86	37.11	28.30	19.00	206.00	121.12	2.67
America	2.74	0.56	4.67	4.21	68.65	51.57	37.18	28.87	19.00	213.33	125.97	2.50
Baron	3.61	0.72	4.67	4.78	55.96	40.84	27.59	23.71	12.67	165.67	107.95	2.81
LSD 5%	0.14	0.05	0.76	0.37	4.92	3.87	3.55	1.94	1.86	28.26	7.81	0.66
C.V.	3.06	5.97	13.15	5.91	5.30	5.71	7.72	4.66	7.45	9.99	4.40	18.2

Measurements taken in Albany, Oregon

3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

■ significant difference over two years one location.

■ significant difference over one year one location.

Table 3A 2000 Additional Morphological Measurements of the Panicle

Cultivar	Growth Habit % Erect	Anther Color % Purple	Panicle Orientation % Upright	Panicle Color % Red	Panicle Type % Open	Panicle Collar % Closed	Panicle Branch Lower Whorl % Drooping	Panicle Branch Lower Whorl % Horizontal	Panicle Branch Lower Whorl % Ascending	Shape of Rachis % Straight	Seed Weight mg per 10,000 Seeds
A97-1336	95	15	5	0	3	70	97	0	3	98	2550
A97-1400	85	53	30	0	100	57	0	95	5	98	2250
A97-1432	35	13	5	0	100	95	0	100	0	100	1780
A96-402	5	45	2	0	100	80	50	0	50	97	3040
A96-453	96	97	7	3	100	73	0	100	0	100	4950
A96-328	92	22	5	0	100	83	0	0	100	100	2300
Unique	22	95	55	0	100	90	0	100	0	100	2100
America	22	80	58	0	100	93	0	100	0	100	2810
Baron	6	28	100	0	100	68	3	15	82	98	3650

Measurements taken in Albany, Oregon
 3 reps; 20 plants/rep = 60 data points
 ■ Cultivar under evaluation

Table 3B 2001 Additional Morphological Measurements of the Panicle

Cultivar	Growth Habit % Erect	Anther Color % Purple	Panicle Orientation % Upright	Panicle Color % Red	Panicle Type % Open	Panicle Collar % Closed	Panicle Branch Lower Whorl % Drooping	Panicle Branch Lower Whorl % Horizontal	Panicle Branch Lower Whorl % Ascending	Shape of Radix % Straight	Seed Weight mg per 10,000 Seeds
A97-1336	100	60	0	0	3	70	3	97	0	100	2510
A97-1400	100	62	2	2	100	57	3	97	0	100	2170
A97-1432	33	88	0	0	100	95	2	96	2	100	1890
A96-402	2	10	0	0	100	80	7	93	0	100	2940
A96-453	95	53	2	2	100	73	0	100	0	100	4860
A96-328	100	95	0	0	100	83	0	100	0	100	2430
Unique	33	30	0	0	100	90	3	97	0	100	2180
America	7	28	0	0	100	93	5	95	0	100	2910
Baron	10	75	0	0	100	68	5	95	0	100	4210

Measurements taken in Albany, Oregon
3 reps; 20 plants/rep = 60 data points
■ Cultivar under evaluation

Table 4A 2000 Additional Morphological Measurements of the Leaf Blade

Cultivar	Seedling Leaf Sheath Color % Red	Leaf Blade Margin Hairs % Pubescence	Leaf Sheath Collar Hairs % Pubescence	Leaf Sheath Ligule Hairs % Pubescence	Leaf Sheath Margin Hairs % Pubescence	Flag Leaf Position % Ascending	Flag Leaf Position % Horizontal	Flag Leaf Position % Descending	Intermediate Nerves on the Lemma % Distinct
A97-1336	0	10	28	77	8	100	0	0	7
A97-1400	0	3	15	10	2	88	0	12	12
A97-1432	0	0	7	17	0	95	0	5	2
A96-402	0	0	13	35	0	78	2	20	0
A96-453	0	0	17	52	3	95	5	0	7
A96-328	0	0	12	10	0	100	0	0	2
Unique	0	0	30	18	0	100	0	0	5
America	0	0	27	25	0	100	0	0	8
Baron	0	0	35	32	0	83	17	0	23

Measurements taken in Albany, Oregon
3 reps; 20 plants/rep = 60 data points
■ Cultivar under evaluation

Table 4B 2001 Additional Morphological Measurements of the Leaf Blade

Cultivar	Seedling Leaf Sheath Color % Red	Leaf Blade Margin Hairs % Pubescence	Leaf Sheath Collar Hairs % Pubescence	Leaf Sheath Ligule Hairs % Pubescence	Leaf Sheath Margin Hairs % Pubescence	Flag Leaf Position % Ascending	Flag Leaf Position % Horizontal	Flag Leaf Position % Descending	Intermediate Nerves on the Lemma % Distinct
A97-1336	0	0	0	93	18	100	0	0	7
A97-1400	0	0	0	77	3	93	0	7	12
A97-1432	0	0	0	87	2	100	0	0	2
A96-402	0	0	0	85	13	83	2	15	0
A96-453	0	0	0	73	22	98	2	0	7
A96-328	0	0	0	68	0	100	0	0	2
Unique	0	0	0	72	0	100	0	0	5
America	0	0	0	58	7	100	0	0	8
Baron	0	0	0	90	27	92	8	0	23

Measurements taken in Albany, Oregon

3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

Table 5A 2000 Additional Morphological Measurements of the Plant

Cultivar	Winter Color % Light Green	Leaf Blade Green Color % Light Green	Leaf Blade Green Color % Medium Green	Leaf Blade Green Color % Medium Dark Green	Leaf Blade Green Color % Dark Green	Leaf Blade Bluegreen Color % Not Bluegreen	Leaf Blade Bluegreen Color % Moderately Bluegreen	Leaf Blade Bluegreen Color % Bluegreen	Leaf Blade Luster Lower Side % Without Luster	Leaf Blade Luster Upper Side % Without Luster	Percent Apomictic
A97-1336	3	0	3	2	95	0	3	97	0	100	95
A97-1400	3	2	95	3	0	5	95	0	8	100	91
A97-1432	2	3	13	0	83	0	0	100	7	100	82
A96-402	3	2	5	0	93	1	2	97	12	100	93
A96-453	10	8	92	0	0	5	95	0	7	100	91
A96-328	0	0	0	0	100	0	0	100	2	100	100
Unique	0	0	0	100	0	7	93	0	0	100	100
America	2	0	18	82	0	3	97	0	0	100	87
Baron	3	2	98	0	0	50	50	0	20	100	96

Measurements taken in Albany, Oregon

3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

Table 5B 2001 Additional Morphological Measurements of the Plant

Cultivar	Winter Color % Light Green	Leaf Blade Green Color % Light Green	Leaf Blade Green Color % Medium Green	Leaf Blade Green Color % Medium Dark Green	Leaf Blade Green Color % Dark Green	Leaf Blade Bluegreen Color % Not Bluegreen	Leaf Blade Bluegreen Color % Moderately Bluegreen	Leaf Blade Bluegreen Color % Bluegreen	Leaf Blade Luster Lower Side % Without Luster	Leaf Blade Luster Upper Side % Without Luster	Percent Apomictic
A97-1336	5	0	2	2	96	0	0	100	0	100	93
A97-1400	8	0	95	5	0	0	100	0	0	100	92
A97-1432	5	3	0	12	85	0	0	100	0	100	88
A96-402	5	0	3	2	93	2	0	98	0	100	90
A96-453	22	10	90	0	0	3	97	0	0	100	85
A96-328	0	0	0	0	100	0	0	100	0	100	97
Unique	0	0	0	100	0	0	0	100	0	100	97
America	3	0	13	87	0	0	0	100	0	100	91
Baron	0	2	98	0	0	100	0	0	0	100	96

Measurements taken in Albany, Oregon

3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

Table 6A
2000 Additional Observations

Cultivar	Leaf Sheath Glaucoity % Present	Leaf Sheath Margin Roughness % Rough	Leaf Sheath Surface Roughness % Rough	Leaf Blade Hairs Upper Side % Present	Leaf Blade Hairs Lower Side % Present	Leaf Sheath Surface Hairs % Present	Leaf Sheath Keel % Present	Lemna Hairs Basal End % Present	Lemna Hairs on Keel % Present	Lemna Hairs Margin Nerve % Present	Lemna Hairs Midrib Nerve % Present	Lemna Hairs Intermediate Nerve % Present
A97-1336	0	0	0	0	0	0	100	100	100	100	100	100
A97-1400	0	0	0	0	0	0	100	100	100	100	100	100
A97-1432	0	0	0	0	0	0	100	100	100	100	100	100
A96-402	0	0	0	0	0	0	100	100	100	100	100	100
A96-453	0	0	0	0	0	0	100	100	100	100	100	100
A96-328	0	0	0	0	0	0	100	100	100	100	100	100
Unique	0	0	0	0	0	0	100	100	100	100	100	100
America	0	0	0	0	0	0	100	100	100	100	100	100
Baron	0	0	0	0	0	0	100	100	100	100	100	100

Measurements taken in Albany, Oregon

3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

Table 6B 2001 Additional Measurements of the Plant

Cultivar	Leaf Sheath Glaucosity % Present	Leaf Sheath Margin Roughness % Rough	Leaf Sheath Surface Roughness % Rough	Leaf Blade Hairs Upper Side % Present	Leaf Blade Hairs Lower Side % Present	Leaf Sheath Surface Hairs % Present	Leaf Sheath Keel % Present	Lemna Hairs Basal End % Present	Lemna Hairs on Keel % Present	Lemna Hairs Margin Nerve % Present	Lemna Hairs Midrib Nerve % Present	Lemna Hairs Intermediate Nerve % Present
A97-1336	0	0	0	0	0	0	100	100	100	100	100	100
A97-1400	0	0	0	0	0	0	100	100	100	100	100	100
A97-1432	0	0	0	0	0	0	100	100	100	100	100	100
A96-402	0	0	0	0	0	0	100	100	100	100	100	100
A96-453	0	0	0	0	0	0	100	100	100	100	100	100
A96-328	0	0	0	0	0	0	100	100	100	100	100	100
Unique	0	0	0	0	0	0	100	100	100	100	100	100
America	0	0	0	0	0	0	100	100	100	100	100	100
Baron	0	0	0	0	0	0	100	100	100	100	100	100

Measurements taken in Albany, Oregon
3 reps, 20 plants/rep = 60 data points
■ Cultivar under evaluation

Table 7
Number of Whorls Bottom Branch

Cultivar	Percent Whorl <4 2000	Percent Whorl =5 2000	Percent Whorl >6 2000	Percent Whorl <4 2001	Percent Whorl =5 2001	Percent Whorl >6 2001
A97-1336	88	12	0	72	28	0
A97-1400	45	55	0	34	63	3
A97-1432	78	22	0	28	70	2
A96-402	46	52	2	25	65	10
A96-453	87	13	0	53	45	2
A96-328	95	5	0	55	45	0
Unique	67	33	0	43	57	0
America	60	40	0	48	60	2
Baron	25	65	10	17	58	25

Measurements taken in Albany, Oregon
 3 reps; 20 plants/rep = 60 data points
 ■ Cultivar under evaluation

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

EXHIBIT E STATEMENT OF THE BASIS OF OWNERSHIP

1. NAME OF APPLICANT(S) Rutgers University - Cook College c/o Dr. William Meyer		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER A97-1336	3. VARIETY NAME Royale'
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) Foran Hall Plant Biology & Pathology Dept. 59 Dudley Road New Brunswick, NJ 08901		5. TELEPHONE (include area code) (732) 932 - 9711 ext. 160	6. FAX (include area code) (732) 932 - 9441
		7. PVPO NUMBER 200200136	
8. Does the applicant own all rights to the variety? Mark an "X" in appropriate block. If no, please explain. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
9. Is the applicant (individual or company) a U.S. national or U.S. based company? If no, give name of country _____ <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
10. Is the applicant the original breeder? If no, please answer the following: a. If original rights to variety were owned by individual (s): Is (are) the original breeder(s) a U.S. national(s)? If no give name of country _____ <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO b. If original rights to variety were owned by a company: Is the original breeder(s) U.S. based company? If no give name of country _____ <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
11. Additional explanation on ownership (If needed, use reverse for extra space): 			

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

- If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
- If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
- If the applicant is an owner who is not the original breeder, both the original breeder and the applicant must meet one of the above criteria.

The original breeder may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

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